

Appl. No. 09/816,613

Response to Office Action of September 29, 2003

LISTING OF ALL CLAIMS

This listing of claims replaces all prior versions and listings of claims in the patent application.

Claim 1 (currently amended): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a first component face and a second component face and a third component face, wherein the second component face is adjacent the first component face and has a keyboard having at least two rows of multiple input keys and capable of accepting a plurality of different user inputs;

the third component face positioned opposite the second component face and having at least one key; and

a display screen accommodated on the first component face.

Claim 2 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a zigzag pattern on the second component face.

Claim 3 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a zigzag pattern on the second component face, each of the at least four input keys having a rib-like projection formed along a peripheral edge of a top face thereof.

Claim 4 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a zigzag pattern on the second component face, each of the at least four input keys having a projection formed at a substantially middle portion of a top face thereof.

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Claim 5 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a zigzag pattern on the second component face, each of the at least four input keys having a projection formed at a substantially middle portion of a top face thereof, wherein the projections of adjacent input keys are continuous to each other.

Claim 6 (currently amended): A portable information terminal as claimed in claim 1, wherein the ~~polyhedral structure includes a third component face~~ can be contacted by as part of the plurality of component faces with which a thumb of a hand can contact such that the polyhedral structure is capable of being supported by a portion of the hand proximate to a root of the thumb, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which can be operated with four fingers of the hand from a forefinger of the hand on down.

Claim 7 (currently amended): A portable information terminal as claimed in claim 1, wherein the ~~polyhedral structure includes a third component face as part of the plurality of component faces disposed in an opposing position with respect to the second component face,~~ the third component face including having the at least one of a key and a button disposed thereon for operation using a thumb of a hand, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which can be operated with four fingers of the hand from a forefinger of the hand on down.

Claim 8 (currently amended): A portable information terminal as claimed in claim 1, wherein the ~~polyhedral structure includes a third component face as part of the plurality of component faces,~~ the third component face disposed in an opposing position with respect to the second component face, the third component face including at least one of a shift key, a control key, a caps lock key and an operation section for inputting one of a coordinate and a direction and which is operable using a thumb of a hand, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which are operable with four fingers of the hand from a forefinger of the hand on down and to which at least one of alphanumeric characters and kana and kanji characters are allocated.

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Claim 9 (currently amended): A portable information terminal as claimed in claim 1, ~~wherein the polyhedral structure includes a third component face as part of the plurality of component faces disposed in an opposing position with respect to the second component face,~~ the third component face including both a left hand operation section which can be operated using a thumb of a left hand and a right hand operation section which can be operated using a thumb of a right hand, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which can be operated with four fingers of both the left hand and the right hand from a forefinger on down.

Claim 10 (original): A portable information terminal as claimed in claim 1, wherein the portable information terminal is operable in both a left hand operation mode and a right hand operation mode, and wherein the portable information terminal further comprises a changeover port for changing over an allocation of input keys disposed on the second component face in response to a current operation mode of the portable information terminal.

Claim 11 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a zigzag pattern in two rows on the second component face wherein a key top of each of the at least four input keys in each of the two rows is supported for pivotal motion around a fulcrum at an edge portion thereof remote from the other key row such that a portion of each key top proximate to the other key row can be yieldably moved when depressed.

Claim 12 (original): A portable information terminal as claimed in claim 1, further comprising:

at least four input keys arranged in a non-uniform key pitch in a zigzag pattern on the second component face.

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Claim 13 (original): A portable information terminal as claimed in claim 1, wherein at least one of a connection port to an external apparatus and a slot for insertion of a medium is disposed on one of the plurality of component faces other than the first and second component faces of the polyhedral structure.

Claim 14 (previously presented): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a keyboard face and a thumb operation face, wherein the thumb operation face is disposed in an opposing position with respect to the keyboard face and is capable of being contacted with a thumb of a hand; and

a keyboard having at least four input keys arranged in a zigzag pattern in first and second key rows on the keyboard face, the at least four input keys being operable with four fingers of the hand from a forefinger of the hand on down.

Claim 15 (original): A portable information terminal as claimed in claim 14, further comprising:

at least four rib-like projections, each of the at least four rib-like projections formed along a peripheral edge of a top face of a respective one of the at least four input keys.

Claim 16 (original): A portable information terminal as claimed in claim 14, further comprising:

at least four projections, each of the at least four projections formed at a substantially middle portion of a top face of a respective one of the at least four input keys.

Claim 17 (original): A portable information terminal as claimed in claim 14, further comprising:

at least four projections, each of the at least four projections formed at a substantially middle portion of a top face of a respective one of the at least four input keys such that the projections of adjacent input keys are continuous to each other.

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Claim 18 (previously presented): A portable information terminal as claimed in claim 14, further comprising:

a left hand operation section arranged on the thumb operation face which is capable of being operated using a thumb of a left hand; and

a right hand operation section arranged on the thumb operation face which is capable of being operated using a thumb of a right hand.

Claim 19 (original): A portable information terminal as claimed in claim 14, wherein the portable information terminal can operate in both a left hand operation mode and a right hand operation mode, and wherein the portable information terminal further comprises a changeover section for changing over allocation of the at least four input keys in response to a current operation mode of the portable information terminal.

Claim 20 (original): A portable information terminal as claimed in claim 14, wherein the at least four input keys are further arranged in two rows on the keyboard face such that a key top of each of the at least four input keys in each of the two rows is supported for pivotal motion around a fulcrum at an edge portion of the key top remote from the other key row such that a portion of the key top proximate to the other key row can be yieldably moved when depressed.

Claim 21 (original): A portable information terminal as claimed in claim 14, wherein the at least four input keys are arranged in a non-uniform key pitch.

Claim 22 (previously presented): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a first component face and a second component face, wherein the second component face is adjacent the first component face and has a keyboard capable of accepting a plurality of different user inputs; and

a display screen accommodated on the first component face;

wherein the polyhedral structure includes a third component face as part of the plurality of component faces disposed in an opposing position with respect to the second component face,

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the third component face including at least one of a key and a button disposed thereon for operation using a thumb of a hand, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which can be operated with four fingers of the hand from a forefinger of the hand on down.

Claim 23 (previously presented): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a first component face and a second component face, wherein the second component face is adjacent the first component face and has a keyboard capable of accepting a plurality of different user inputs; and

a display screen accommodated on the first component face;

wherein the polyhedral structure includes a third component face as part of the plurality of component faces, the third component face disposed in an opposing position with respect to the second component face, the third component face including at least one of a shift key, a control key, a caps lock key and an operation section for inputting one of a coordinate and a direction and which is operable using a thumb of a hand, and wherein the portable information terminal further comprises at least four input keys arranged in a zigzag pattern on the second component face which are operable with four fingers of the hand from a forefinger of the hand on down and to which at least one of alphanumeric characters and kana and kanji characters are allocated.

Claim 24 (previously presented): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a first component face and a second component face, wherein the second component face is adjacent the first component face and has a keyboard capable of accepting a plurality of different user inputs;

a display screen accommodated on the first component face; and

at least four input keys arranged in a zigzag pattern in two rows on the second component face wherein a key top of each of the at least four input keys in each of the two rows is supported

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for pivotal motion around a fulcrum at an edge portion thereof remote from the other key row such that a portion of each key top proximate to the other key row can be yieldably moved when depressed.

Claim 25 (previously presented): A portable information terminal which allows an inputting operation with one hand, comprising:

a polyhedral structure having a plurality of component faces including at least a keyboard face and a thumb operation face, wherein the thumb operation face is disposed in an opposing position with respect to the keyboard face and is capable of being contacted with a thumb of a hand; and

a keyboard having at least four input keys arranged in a zigzag pattern on the keyboard face, the at least four input keys being operable with four fingers of the hand from a forefinger of the hand on down;

wherein the at least four input keys are further arranged in two rows on the keyboard face such that a key top of each of the at least four input keys in each of the two rows is supported for pivotal motion around a fulcrum at an edge portion of the key top remote from the other key row such that a portion of the key top proximate to the other key row can be yieldably moved when depressed.

Claim 26 (previously presented): A portable information terminal as claimed in claim 14, further comprising a display face between the keyboard face and the thumb operation face.